Air Force Office of Scientific Research

Contractors' Meeting on Turbulence

ABSTRACT GUIDELINES

All PI's who have grants or contracts which were active in any part of FY 2000 are asked to prepare an extended abstract of no more than six pages including figures and references. Please prepare your papers according to the following guidelines:

1. The abstract should be typed in Times Font, at 12 point size.

2. Margins should be one inch (1") on the top and bottom and one and a quarter inches (1 1/4") on left and right sides.

3. All text and headings should be single spaced. Double space between paragraphs.

4. See the heading sample on the attached page. Type the title in CAPITAL LETTERS; double spaced; type the AFOSR grant number in CAPTIAL LETTERS; double spaced; type author name, department and affiliation (double space between authors if more than one), capitalizing the first letter of each word. After this heading, triple space, then type the text of the manuscript. Text should be left and right justified. DO NOT INDENT. Pages of the hardcopy may be numbered in non-reproducible blue pencil only.

5. Include an acknowledgment/disclaimer as shown in the example. The acknowledgment should go at the end and identify sponsoring organization(s) and the grant/contract number.

6. Include a section at the end of your abstract identifying the names and positions of all personnel supported by the grant or contract, and listing any publications, awards and transitions during the past year. For any transitions, please include contact information for the transition recipient, including address and phone number. See the attached sample.

7. References should be complete and unabbreviated. The preferred formats are listed following the sample abstract on the following page. References may directly follow the abstract, and do not need a separate page.

8. Figures must be photographically reproducible. Line drawings, including lettering, must be clear and sharp. Each figure should be numbered and captioned. It is not necessary to put figures on a separate page, i.e., they may appear within the text of the abstract. Color photographs will not be reproduced in color.

9. Your abstract will be reproduced without retyping or editing, and must therefore be prepared in strict accordance with the above instructions. Please proofread carefully.

10. Abstracts are due by **20 July 2001**.

11. Please submit your abstract in both hardcopy and electronic copy. The hardcopy serves as a backup in the event there is difficulty in opening or reading your electronic submission. Send your hardcopy and disk to Raymond Herrera. Electronic copies may also be submitted by e-mail

to raymond.herrera@afosr.af.mil (include the subject line "Turbulence Contractor's Meeting Abstract"). Files must be in either Microsoft Word (PC) or .pdf formats. Very large files should either be "zipped" before e-mailing or should be mailed on a zip disk or CD-ROM. (i.e. files that exceed 1 meg). Please include contact information so that Raymond can reach you in the event there are difficulties in opening your electronic documents.

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EXAMPLE

TITLE IN CAPITAL LETTERS HERE

AFOSR GRANT NUMBER HERE

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Abstract
The technology of MCFCs is now rapidly approaching the pre-commercial, large-scale demonstration stage. 100-kW units have been tested in Japan, and 250-kW to 2-MW demonstration units will be operated by utilities and energy companies in California during 1994 and 1995.

The objective of this world-wide effort is to demonstrate that MCFCs can be operated smoothly with the expected high efficiency and practically zero emissions of pollutants and MCFCs can be produced in large-scale versions (exceeding 1 m^2 active area) by standard manufacturing techniques, which implies potential cost reductions that will make MCFCs competitive with advanced turbine technology. The technology of MCFCs is now rapidly approaching the pre-commercial, large-scale demonstration stage. 100kW units have been tested in Japan, and 250-kW to 2-MW demonstration units will be operated by utilities and energy companies in California during 1994 and 1995, Figure 1.

FIGURE

Figure 1: The description of the figure should follow directly beneath the figure. Please justify the figure captions like the text of the abstract.

The technology of MCFCs is now rapidly approaching the pre-commercial, large-scale demonstration stage. 100-kW units have been tested in Japan, and 250-kW to 2-MW demonstration units will be operated by utilities and energy companies in California during 1994 and 1995. 100-kW units have been tested in Japan, and 250-kW to 2-MW demonstration units will be operated by utilities and energy companies in California during 1994 and 1995. The

objective of this world-wide effort is to demonstrate that MCFCs can be operated smoothly with the expected high efficiency and practically zero emissions of pollutants.

Acknowledgment/Disclaimer
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References

1. J. F. Jones, Fuel Cell Technology for the Future, in Fracture 1969, Chapman and Hall, London 1969, 205-219.

2. 0. L. Valley, Fracture Mechanics, International Journal of Fracture, 1975, 11: 495-508.

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4. K. Parke and W. G. Knottingham, On the Problem of Crack Extension in Brittle Solids under General Loading. Report SM 74-8, Graduate Aeronautical Laboratories, California Institute of Technology, Pasadena, 1974.

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Publications
"MCFC Modeling and Simulation Advancements," J. Jones, P. Smith, J. Johnson, AIAA Journal, Vol. 37, No. 3, January 2000, pp. 364-9.

Awards Received
AIAA Best Paper Award, 31st Annual Fluid Dynamics Conference, Denver, CO. Paper Titled: "MCFC Modeling and Simulation Advancements"
ASME Fellow—awarded January 2000
AIAA Theodore Von Karman Award—January 2000

Transitions
The MCFC technology developed in this research effort have been incorporated by the New Cell Corporation in the design of their new fuel cell system. Point of contact at New Cell Corporation is Thomas Hill, 111 Main St., Arlington, VA, 22203, Phone: 703-324-2542.